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Modern extrusion technology
Aspects of transfer injection molding
Compounding ingredients price list

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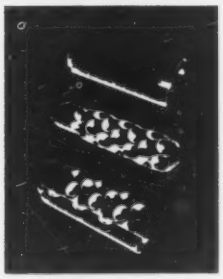

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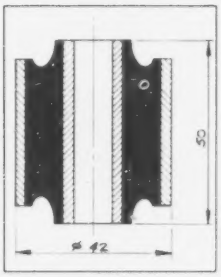

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by Jon Menough, contributing technical service editor. A pressblower, which combines the advantages of extrusion and injection blow molding and makes it possible to injection mold thicker head sections completely, is featured in this month's column.

12 Quality Management: IISRP statement on SPC and quality assurance systems

The statement on statistical process control and quality assurance systems adopted by the International Institute of Synthetic Rubber Producers, Inc. at its meeting last spring in Buenos Aires is presented in this columm.

14 Urethane Forum: Basic handling of prepolymers and curatives

by Bill Stahr, Brad & Associates. The paper "Shop handling and practices for urethane prepolymers and curatives," by Frank Paavola of Albert Trostel Packings, which begins with the receipt of chemicals and proceeds through the production operation to the shipment of the final parts, is outlined.

17 An overview of modern extrusion technology

by Dennis Kemper and Joe Haney, Gates Rubber Co. The equipment and compounding of rubber has evolved over the years to the modern state that is described in this article. This evolution has produced a wide variety of equipment and materials from which to choose.

24 Aspects of injection transfer molding

by Jack Corbett, REP Corp. After exploring the different families of dynamic automotive parts, the author reviews the production of a conventional shockmount by injection transfer, considering in succession the different components of such production set-up.

32 The development and use of natural rubber structural bearings for earthquake protection

by C.J. Derham, Rubber Consultants. In this article a base isolation system is described in which all of the requirements, such as wind sway control, high damping and fire resistance, are met as intrinsic properties of the rubber bearings.

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edited by Bob Samples, Akron Rubber Development

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Cover

Cover photo courtesy of Monsanto Chemical Co.

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Business Briefs

tributor for the Southeast.

Dock Resins Corp appointed **New England Resins & Pigments Corp.**, Woburn, MA as a sales representative.

Financial statements

Armstrong Rubber reported net income for the first quarter of $4 million on sales of $257.3 million.

BP Chemicals reported operating profit of $291 million in 1986.

Cooper Tire had a 1986 net income of $23 million on sales of $577.5 million.

Day International reported first quarter earnings of $3.9 million on sales of $130.8 million

Engelhard Corp. had 1986 earnings of $53.3 million on sales of $2.29 billion.

Essex Chemical reported 1986 net income of $8.8 million on sales of $205.6 million.

Firestone reported first quarter net income was $41 million on sales of $846 million.

GenCorp had a net income of $130 million in 1986 on sales of $3.1 billion.

BFGoodrich reported 1986 net income of $32.7 million on sales of $2.6 billion.

Goodyear reported 1986 income of $100.7 million on sales of $9.1 billion.

M.S. Hanna Co. incurred a net loss for 1986 of $104.5 million on sales of $130.3 million.

Jones & Vining had a net loss for 1986 of $722,618 on sales of $27.7 million.

Lubrizol Corp. reported 1986 net income was $78.1 million with sales of $913.3 million.

Lydall had 1986 earnings of $2.5 million on sales of $113 million.

Rubbermaid reported 1986 earnings of $70.1 million on sales of $795 million.

Sumitomo Chemicals reported 1986 earnings of $30 million on sales of $3.2 billion.

RMA tire report for 1986 (figures in thousands of units)

Passenger tires	YTD 1986	YTD 1985	
Shipments			
Original equipment	54,392	54,839	-0.82
Radial	45,778	45,773	0.01
Replacement	144,455	141,455	1.99
Radial	125,102	115,412	8.40
Export	4,032	4,625	-12.82
Radial	3,098	3,556	-12.88
Total	202,691	200,919	0.88
Radial	173,978	164,741	5.61
Production	159,350	162,584	-1.99
Radial	135,444	130,952	3.43
Truck & bus tires			
Shipments			
Original equipment	6,859	7,696	-10.90
Radial	4,631	4,895	-5.39
Replacement	32,392	32,098	0.92
Radial	15,732	14,009	11.58
Export	1,302	1,335	-2.47
Radial	773	723	6.92
Total	40,553	41,131	-1.41
Radial	21,136	19,717	7.20
Production	30,939	34,339	9.90
Radial	15,476	15,815	-2.14

RMA industry rubber report for 1986 (figures expressed in metric tons)

	Cumulative 1986	Cumulative 1985	%
Total new rubber			
New rubber available	3,010,135	2,919,787	3.09
Imports	1,024,645	1,081,927	-5.29
Exports	391,891	364,630	7.48
Apparent consumption	2,617,144	2,576,439	1.58
Total natural rubber			
Imports	769,345	813,575	-5.44
Exports	36,473	40,041	-8.91
Apparent consumption	744,647	774,683	-3.88
%total new rubber	28.45	30.06	
Total synthetic rubber			
Production	1,985,490	1,837,860	8.03
Imports	255,300	268,352	-4.86
Exports	355,418	324,589	9.50
Apparent consumption	1,872,497	1,801,756	3.93
Total SBR			
Production	791,501	735,061	7.68
Imports	95,843	94,303	1.63
Exports	111,713	83,002	34.59
Apparent consumption	770,183	766,303	.51
Total nitrile			
Production	57,747	53,185	8.58
Imports	12,311	11,161	10.30
Exports	11,915	6,713	77.49
Apparent consumption	59,999	58,645	2.31
Polybutadiene			
Production	324,569	330,279	-1.73
Imports	60,417	66,503	-9.15
Exports	23,708	23,954	-1.03
Apparent consumption	357,985	371,739	-3.70
Ethylene-propylene			
Production	229,629	214,810	6.90
Imports	4,460	1,277	249.26
Exports	45,107	38,370	17.56
Apparent consumption	186,404	177,623	4.94
Butyl, polychloroprene, polyisoprene, silicone and other synthetic elastomers			
Production	582,044	504,526	15.36
Imports	82,260	95,108	-13.50
Exports	162,975	172,550	-5.55
Apparent consumption	497,927	427,447	16.49